Royal Harbinger

Shamshan(opp

& Much More

Manthan – Use bins for plastic waste...

UDAIPUR | MONDAY, SEPTEMBER 24, 2018

60% of the plastic-waste collected and segregated gets recycled while the balance 40% adds to plastic pollution. Ultimately, what we do at an individual level will make the difference

Interestingly, business city Mumbai, has taken a major step towards arresting pollution.

Brihanmumbai Municipal Corporation (BMC), has already set up plastic collection bins and PET bottle crushing machines at public places in Mumbai. They have also decided to start a toll-free helpline that will offer plastic pickup service. 24 collection bins are set across Mumbai to collect plastic waste.

The plastic collection bins are of 20 square feet with a capacity to hold 500 kg each. 137 tonnes of waste has been collected in BMC bins in 2 months between April 1 and May 31 2018. The 'Solid Waste Management Community' recommends Segregation of plastic waste material at source by providing separate garbage bins for different wastes (recycling/compost/others) in housing complexes, offices, public places like railway stations etc.

The plastic that we count as waste has immense value. Only if, it is recycled and brought to the use once again.

"Manthan", an initiative by Hindustan Zinc, is a series of stories to bring awareness about various concerns like air pollution, water pollution, plastic pollution, noise pollution, climate change, road safety and wildlife protection.

Universities to celebrate Surgical Strike day on 29th September

Udaipur: UGC has issued directives for celebrating Surgical Strike Day on 29thSeptember across all educational institutes and departments as per instructions of government of India. As per the directives, higher educational institutes will join hands with NCC and carry out a special parade on this day.

A special meeting of educational institutes will need to be held with ex-servicemen so that students are made aware of the challenges faced by the soldiers at the border. Students will henceforth pledge to support the army and send letters and cards in favour of Indian Army. These cards will comprise of both digital and physical formats. The cards will then be forwarded to PRO and PIB who will then forward them to the nearest cantonments of defence forces.

Secretary of UGC Prof. Rajneesh Jain informed that a multimedia exhibition will be held on 29th September based on Surgical Strike for which all institutes will be required to encourage teachers and students to participate in the exhibition.

Udaipur Muslims Conclude Muharram 2018

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Udapur: Ashura, literally meaning ten is commemorated on 10th of Muharram as the day of Iman Hussain's martyrdom in the battle of Karbala fought in 681 AD. The day of Ashura concluded in Udaipur with great honor and faith by the Muslims.

In Udaipur, the procession of Taziya was taken on the 10th day of Muharram. Taziyas are replicas of Imam Hussain's mausoleum and are made of wood and paper. Government school student bags Silver in Judo

Udaipur.A student from a government school

Contaminants in Ahar River Similar to High Income Countries

"Active

health

cern.

Factory (Gumania wala) (8)

prime minister".

have to win"

has

Mahasatiya), (9) FCI-Distillery **Pharmaceuticals** ,(10) Kaladwas, (11) Bhoiyon Ingredients, Ki Pacholi . (12) Sukha Naka (Matun) and (13) Udaisagar. **Personal Care** The research shows presence **Products**, of 30 contaminants including 19 active Pharmaceutical Hormones, Ingredients (API- including 4 Industrial antibiotics) 2 Personal Care **Chemicals** Products(P CPs), 6 steroid **Detected**" hormones and 3 contaminants related to industrial applications Emerging in the waste water of Udainur **Contaminants** . Of these 30 contaminants, 24 threat to environwere detected at more than 5 sampling locations. ment and human

The chemicals which may be termed for emerging contam-Udaipur: The concentrations inants for the lakes and river of various contaminants withfound are Azithromycin, in the river water of Udaipur. Benzotriazole, Bicalutamide, Caffeine, Carbamazepine, an Indian small urban center are similar to those common-Clarithromycin

Cyclophosphamide, ly reported in untreated waste-DEET, water in high income countries. Diclofenac. A range of organic contami-Desipramine, Diltiazem, nants, including active phar-Diphenhydramine, Furosemide, Glibenclamide maceuticals ingredients, personal care products, hormones ,Hydrochlorothiazide, and industrial chemicals, have Ibuprofen, Ketoprofen, been detected along a sec-Meloxicam, Methotrexate, tion of the Ahar River flowing Methylbenzotriazole, through the of Udaipur, the city Metoprolol, Naproxen, of lakes. The presence of these Pindolol, Prednisolone, Propanolol, Sertraline, Sotalol, micro pollutants is caused by indiscriminate use of various Sulfamethoxazole, Tramadol, Trimethoprim, Venlafaxine, cosmetic products like Shampoo, Soaps, Deo, Verapamil ,Androsterone, Bisphenol A, Estrone, Creams; manufacturing, con-Dihydrotestosterone, Estrone, sumption and use of various Estradiol, ethynylestradilol, medicines including antibiotics , anti depressants, contracep-Testosterone, Triclosan

tives, growth hormones; deter-According to researcher Dr. Anil gents, mosquito and insects Mehta, Principal, Vidya repellents; Plastic bottles and Bhawan Polytechnic, these various industrial chemicals . contaminants are not only The presence of these contatoxic for the environment but minants is a matter of great conalso pose threats in terms of various disruption to endocrine gland and reproductive sys-

This research is published in recent online edition of intertems and cause cancer. national journal " Science of It was found that concentrathe Total Environment "of tions of pharmaceuticals, such Elsevier . The research was as carbamazepine, antibiotics executed by the scientists of and non-steroidal anti-inflammatory drugs (NSAIDs). CSIRO and Western Sydney University of Australia ; and ranged up to 1900 ng/L. Other Vidya Bhawan Polytechnic and organic contaminants, such Wolkem Environment Lab of as steroid estrogens (up to 124 Udaipur. The research team ng/L), steroid androgens (up included Dr Mike Williams, Dr to 1190 ng/L), benzotriazoles Rai S. Kookana , Dr. Anil (up to 11 $^{\bigcirc}g/L$), DEET (up to 390 ng/L), BPA (up to 300 Mehta, Dr Basant Maheshwari ng/L) and caffeine (up to Dr S K Yadav, Dr B L Tailor and enthusiastic researchers 38 Jg/L), were all similar to prefrom Vidya bhawan and viously reported concentrations in wastewaters in high Wolkem. Water samples were collectincome countries. The concentrations of the meaed from the Ahar River in locations that ranged from the sured APIs and, especially, unmeasured APIs may have western to the eastern boundary of the urban zone of an ecological consequence as Udaipur, with a total of 13 samwell as cause threat to human pling locations -namely health when considering their (1)Rangsagar, (2) Pichhola combined effects. Lake , (3) Fatehsagar Lake , Concentrations of APIs used (4) Chikalwas pick up , (5) to treat chronic illnesses Bedla Pulia, (6) Pula, (7) Aaloo (including diabetes and high

Rahul Baba day dreaming,

BJP to remain unshakeable

like Angad's leg in Rajasthan

:Amit Shah

Udaipur: BJP president Amit Shah continued his scathing attack

on Rahul Gandhi as well as the Congress party on the third

day of his Rajasthan tour on Tuesday. Shah addressed the

party workers at the Shakti Kendra Sammelan held in

He arrived almost two hours late than the schedule and hence

had to rush with his addresses at every place where the audi-

ence had been waiting impatiently to hear him. Instilling zeal

and enthusiasm among party workers, Shah said " BJP is the

largest party in the country today with 19 state governments

working under the abled leadership of prime minister

NarendraModi. It is the only party where a boy who posted

party posters has been raised to become party president and

a tea vendor has been entrusted to lead the country as the

Addressing the tightly packed hall, Shah said today the BJP

has the possession of 70 percent of the country's rule. A party

that began its journey with mere 10 members has a massive

workers force of 11 crore and to continue this growth, its essen-

tial that the party win the 2019 general elections. Calling it the

workers elections, Shah said " Our prime minister, chief min-

isters, parliamentarians, legislators are not leaders but mere

workers who are committed to serve the nation through their

respective positions. It is therefore not MPs or MLAs elections,

it is the election and testing of the party workers which we

Taking a dig at Congress president Rahul Gandhi, Shah said

the congress president says he sees in dreams Congress win-

ning elections in three states. " Rahul Baba, go and analyse

the election results from 2014 onwards, Congress has been

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AtalSabhagar at SavinaKrishimandi.here in Udaipur city.

blood pressure), such as

glibenclamide, hydrochlorothiazide and metoprolol were within ranges reported previously of untreated wastewaters in high income countries. The comparable concentrations of APIs in these river samples may indicate that usage rates of the measured APIs are similar to high income countries. The rapid emergence of antimicrobial resistance (AMR), particularly in middle income countries such as China and India. represents an area of global concern due to the widespread presence of emerging contaminants such as antibiotics

and antimicrobial chemicals potentially leading to selection pressure for the occurrence of AMR. The concentration of azithromycin (>250 ng/L) s could be conducive for the development of AMR . There is presence of various endocrine active chemicals in the waters of Udaipur.

The concentrations of endogenous androgens measured at some locations of Ahat --Mahasatiya and FCI (sites 8



and 9) are approaching values

The co ntrations of subsequent widespread majority of other measured .Ammonium ion(NH4+)concontaminants in this study centrations, considered a reliwould suggest that though the able indicator of human inputs to wastewater measured at potential risks are low at present but may have severe eco-Pichhola & Fatehsagar (sites logical and human health con-2 and 3)were also comparasequences if not controlled ble with NH4+concentrations The reference site, site 4 in Ahar River after Pula(site 6 (Chikalwas), was compara-). The detection of a number of tively uncontaminated although organic contaminants and a number of contaminants NH4+ suggests the relatively were measured at low conhigh population density adjacent to these lakes may lead centrations. The non-steroidal anti-inflammatory drugs to a considerable degree of wastewater is also diverted (NSAIDs) diclofenac, ibuprofen and naproxen all showed towards the lakes. This is a similar pattern of increasing despite the large dilution facin concentration from site (Pula) tor associated with these lakes, to (Ahar Shamasan as well as their location in the /Mahasatiya) and then upper reaches of the Ahar washed out and BJP has emerged victorious everywhere. And still you dream of congress victory in Rajasthan, MP and Chattisgarh which is farcical. BJP in Rajasthan will remain unshakeable as Angad's leg here, no one can uproot us" Shah's

decreasing after site 11 (Bhoiyon ki Pacholi) Other contaminants such as the steroid hormones showed more variability in their concentrations after site 6 (Pula), although their concentrations after site 11 diminished rapidly (Bhoiyo ki Pacholi). Generally speaking, however, there was little attenuation of contaminants for the approximately 10 km from the highly urban site Pula until just prior to UdaiSagar.

A number of the organic contaminants, including the PCPs, steroid hormones and APIs, were also detected at sites Rangsagar, Picchola, Fatehsagar although typically at lower concentrations than other sites on the Ahar River , while some of the highest concentrations of the benzotriazoles were also measured at Rangsagar (site 1). The benzotriazoles are highly polar, persistent in the environment and considered as high production volume chemicals due to their widespread applications in industrial and domestic appli-

River urban watershed PCPs (mainly due to concentrations of caffeine) had the greatest contribution to the overall measured organic contaminant concentrations at Fatehsagar, Chikalwas,FCI and Bhoiyo ki Pachholi) (sites 3, 4, 9 and 11). The concentrations of caffeine are in a similar concentration range with what might be expected in untreated wastewater influent of high income countries..

The industrial chemicals (mainly due to 5-methylbenzotriazole) made up the greatest contribution to measured contaminant concentrations at sites Rangsagar, Kaladwas, Sukha Naka and Udaisagar (Sites 1, 10, 12 and 13). APIs (including antibiotics)made up the greatest share of contaminants at sites Pichhola and Bedla Pulia), albeit at comparatively low concentrations. The sum of APIs remained reasonably constant from sites Pula to Bhoiyo Ki Pacholi and were between 2.4 to 5 Jg/L .The concentrations of the API carbamazepine from Pula to Udaisgar (sites 6 to 13) are notable. In contrast to the PCPs and industrial chemicals. carbamazepine was not detectable until Pula (site 6), concentrations of carbamazepine, however, remained relatively constant from sites Pula to Sukha naka despite the marked decrease in population density after FCI (site 9). Apart from carbamazepine,

there was a diverse array of APIs also detected in the water samples after Pula Sub-classes of APIs quanti-

fied included those targeting the nervous system (e.g. carbamazepine, venlafaxine), cardiovascular disease (e.g. diltiazem, hydrochlorothiazide), the respiratory system (e.g. diphenhydramine), the immune system (e.g. cyclophosphamide), infectious agents (e.g. azithromycin, sulthoxazole) and the mus culoskeletal (e.g. diclofenac, ibuprofen) systems .Aside from domestic use of APIs contributing to residues present in water samples, discharges originating from the many medical facilities present in Udaipur may also account for the apparent diversity of APIs quantified in water samples Although API manufacturing occurs in Udaipur, no information was available relating to the specific APIs being produced and future quantitative analysis of water samples should identify these inputs where possible.

sites 6 to 11, the concentrations of steroids (more than tenfold), PCPs (more than 25-fold) and industrial chemicals (nearly 100-fold) increased considerably from site Pula to Udaisagar . In the case of steroid hormones, androgens (especially androsterone) cause a considerable increase in their overall concentrations from sites 7 to 11. The steroid estrogen concentrations were also highest (>90 ng/L) from sites 8 to 11, mainly due to estrone .Concentrations of endogenous hormones were comparable to previous surveys of untreated wastewater influent in higher income countries. Concentrations of steroid androgens were higher than steroid estrogens at all sites, which is consistent with higher loads of endogenous androgens excreted by males and females combined being higher than loads of endogenous estrogens excreted by nonpregnant females. As with the APIs, concentra-

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tions of the steroid hormones would also be expected to reflect discharges from domestic sources, although livestock may also contribute to endogenous hormones in the environment.

For example, the higher concentrations of 17 ✓ -estradiol compared with 17 ✓ -estradiol atAharShamshan/Mahasatiya to Bhoiyo ki Pacholi (sites 8-11) could be due to cattle commonly present in the urban areas of Udaipur discharging their wastes into the urban wastewater diversion systems in addition to domestic waste-

water discharges The comparatively high concentrations of the emerging contaminants after Pula (site 6), especially notable at kaladwas (site 10), did not correspond with sampling sites Gumania wala, Ahar Shamshan and FCI (7 to 9) on watersheds with the highest population densities (i.e. sites 7-9). The combined concentrations of the steroid estrogens



cations . The insect repellent DEET (classified as a PCP) suggests potential for androgenic effects in aquatic organwas also quantified at sites Rangsagar, Pichhola, isms. As with environmental Fatehsagar (Sites 1-3), which estrogens, a number of other pesticides, industrial chemiis consistent with its frequencals and pharmaceuticals can cy of detection in surface and also have effects on normal wastewaters (typically >90%)in androgenic function along with Europe, North America, South the endogenous steroid estroand Asia due to its effectivegens. ness as an insect repellent and

bagged silver medal in Judo championships held in Kota. Resident of Pipliya village, Tulsa Meena has bagged Silver in Under-14 Judo championships in the 63rd championships held on regional level in Kota.

Tulsa is a hosteller at Government tribal girl's hostel in Ambamata. She has trained under Sushil Sen and Kishan Soni. The above information was provided by the hostel warden.

Exciting events scheduled for 64th Wildlife Week in October

Udaipur: The Wildlife Week programs are being organised under the joint association of the Forest Department and the World Wildlife Fund (WWF) from 1-6 October 2018.

A variety of programs and competitions have been planned for students across the 6 day event. The inauguration ceremony will be graced by eminent and highly ranked experts, who will present their understanding and views to the audience in the form of short lectures.

Run for Wildlife: excursions to the Biological Park at Sajjangarh and Biodiversity Park at Amberi; Specimen Identification Quiz; Spot Painting; Rangoli making; Wall Painting competition; Wildlife Q&Asessions; Essay Writing competitions; Wildlife Quiz; Photography exhibition, etc will be some of the events that will make the Wildlife Week

Conference Udaipur – of its kind! organized

Udaipur: Learning City UnConference is a one of its own kind initiative that aims to get closer to a beautiful world for all of us. The second season of the UnConference took place on sunday at Vidya Bhawan auditorium with multiple activities throughout the day.



Harsh Mittal, the organizer of the UnConference said that this initiative has been possible with the joint association of a few like-minded institutions viz. Shikshantar, Sukoon, Swaraj University, Banyan Roots, Millets of Mewar, Pukar, Natyansh Society, Sankalp, Eco Hut, Flying Foxes, Bindaas Community Media, and Verve School.

He added that UnConference event was envisioned in an environment with a continuous thirst for learning, where each participant both a teacher as well as a student, has learned few stanzas for the society where each one will be contributing builder, an environment of learn

Police should investigate the right reasons for reported accidents

words drew loud applause from the Audience.



Udaipur: Hindustan Zinc along with Rajasthan Road Safety Society and Awakening Mission, District Police, Ajmer, in collaboration with District Public Relations Department, organized a workshop for Police and Media in terms of Road Safety Sensitization in a hotel at Aimer. In this conference, Police Officers of Ajmer, Station Officers and their representative Research Officers, Traffic in-charges and Print & Electronic media attended the workshop. In the area of road safety, is first of its kind in the country, initiating the reporting of cases and reasons for road accidents and highlighting them in media.

The objective of the workshop was to understand the causes of road accidents on the basis of scientific research methods by the Police and by observing the researched analytics and reports received from common public on the road. This

In contrast to the consistent concentrations of APIs from

(17 ✓ -estradiol, 17 ✓ -estradiol and estrone) ranged from 30±1 ng/L at site Sukha Naka (Site 12) up to 130 ng/L at FCI and Kaladwas (sites 9 and 10).Based on the relative potencies of the measured estrogens, this equated to a combined concentration of the most potent estrogen 17 -

estradiol, or 17 ✓ -estradiol equivalents (EEQs), ranging from 2.33±0.46 ng/L at Rangsagar(site1)to40.3±4.6 ng/L at Kaladwas (site 10).

will help in preventing the repetition of the same mishaps in the future. For the same, even the locations and areas that are accident-prone were identified and what are the reasons that lead to generation to such areas were described.Currently, due to road mishaps, on an average, 84% of the drivers are responsible for careless driving whereas, 66% drivers are responsible for speeding. This fact is being conveyed to the common man via Police and Media.

The other reasons for the accidents were the ones due to roads, environment, constructions on the roads, climate and due to lack of proper and effective enforcement of traffic rules. The other important reason for the road mishaps is lack of sufficiently trained skilled manpower for research of road accidents.During the workshop, National Road Safety Technical Advisor, Government of India – Mr. Virendra Singh Rathore, spoke about the various efforts and new initiatives taken by the government to cater to the plight of road safety.

Full time Secretary of the District Legal Services Authority, Mr. RakeshGaura, spoke about the authorization plan for the victims of the accident and said that reporting such accidental cases to media is one of the most important things that the changing time today demands. Senior Editor, Times of India, Mr. Deepak Das also shared his experiences about road accidents. Mr. Balwant Singh Rathore - Unit Head, Kayad Mine, gave a brief overview about the initiatives and efforts put forth by Hindustan Zinc to cater to road safety. At Hindustan Zinc, safety is the heart of operations and essential for smooth business. It is essential not only at the workplace, but also beyond the boundaries of the business. Project BE SAFE - Zindagi was launched in 2015 to imbibe safety as a responsibility. Conceptualised as part of communication project, BE SAFE -Zindagi involves live, informal interaction with contract & noncontract employees about industrial & road safety, not just within the company premises but also beyond the boundaries. The workshop comprises screening of specially crafted safety films and silent meditation sessions.